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(54) Title: DISCOVERING PROXIMATE APPARATUSES AND SERVICES IN A WIRELESS NETWORK

(57) Abstract: A searching apparatus in a wireless network with at least three base stations is put in the position of identifying the available apparatuses and services which are in its proximity, in that the apparatuses G_i ($i \neq k$) determine the signal strengths $ss(i, j)$ at which they receive signals from the base stations B_i , and the apparatuses to be discovered send these signals to a searching apparatus G_k .

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/000952

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04Q7/38 H04L12/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04Q H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/021851 A (NEWBURY NETWORKS INC) 13 March 2003 (2003-03-13) paragraph '0010! paragraph '0037! - paragraph '0040! paragraph '0049! paragraph '0053! - paragraph '0056! paragraph '0057! paragraph '0063!	1-10
A	US 2002/111173 A1 (TANAKA HIROHISA A ET AL) 15 August 2002 (2002-08-15) paragraph '0009! paragraph '0044!	1-10
A	EP 0 794 681 A (BOSCH GMBH ROBERT) 10 September 1997 (1997-09-10) sentence 20 - sentence 50	1-10

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☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03021851	A	13-03-2003	CA 2459920 A1	13-03-2003
			EP 1436639 A2	14-07-2004
			WO 03021851 A2	13-03-2003
			US 2003043073 A1	06-03-2003
US 2002111173	A1	15-08-2002	AU 6977101 A	24-12-2001
			WO 0197543 A1	20-12-2001
			AU 6685101 A	24-12-2001
			AU 6826501 A	24-12-2001
			AU 6977001 A	24-12-2001
			WO 0197541 A1	20-12-2001
			WO 0197542 A1	20-12-2001
			WO 0197544 A1	20-12-2001
			US 2002090954 A1	11-07-2002
			US 2002107008 A1	08-08-2002
			US 2002086676 A1	04-07-2002
EP 0794681	A	10-09-1997	DE 19608942 A1	18-09-1997
			EP 0794681 A2	10-09-1997